

Description of *Pazinotus goesi* n.sp. (Gastropoda: Muricidae) from the Virgin Islands, western Atlantic

Roland HOUART

Research Associate

Institut royal des Sciences naturelles de Belgique
rue Vautier, 29, 1000 Bruxelles, Belgium

Keywords. Gastropoda, Muricidae, western Atlantic, new species.

ABSTRACT. *Pazinotus goesi* n.sp. is described from two specimens collected off the Virgin Islands in 1868. The new species is compared with the sympatric *P. stimpsonii* (Dall, 1889).

INTRODUCTION

Three Recent species of *Pazinotus* are currently known in the western Atlantic: *P. stimpsonii* (Dall, 1889), *P. bowdenensis* (Vokes, 1970) and *P. bodarti* (Costa, 1993). *P. stimpsonii* is known from off Panama (depth unknown) (coll. R. Houart), off the Virgin Islands, living at 364-582 m (sympatric with *P. goesi* n.sp.), off Barbados (type locality), and off Vitória, Espírito Santo, Brazil, living at 85-105 m (Houart, 1991). *Pazinotus bowdenensis* was described as a fossil, from the Bowden Formation in Jamaica (Vokes, 1970). However, Recent species are now known from off Cape San Blas, Florida, in 183 m, and in the Gulf of Mexico, living at 200 m (Vokes, 1992).

Pazinotus bodarti is a Brazilian shallow water species, occurring off the state of Espírito Santo at 25 m depth (Costa, 1993).

The discovery of a fourth species happened during the identification of muricids for the Swedish Museum of Natural History. The original lot consists of seven shells dredged in 1868 by the Swedish Physician Axel Goës in 1868. Five specimens are identified as *P. stimpsonii* and 2 are here described as *P. goesi* n.sp.

Abbreviations

SMNH: Swedish Museum of Natural History, Stockholm, Sweden.

RH: collection of the author.

s	secondary cord
t	tertiary cord
IP	infrasutural primary cord (primary cord on shoulder)
abis	abapical infrasutural secondary cord (shoulder)
P1	shoulder cord
P2-P6	primary cords of the convex part of the teleoconch whorl
s1-s6	secondary cords of the convex part of the teleoconch whorl
example: s1 = secondary cord between P1 and P2; s2 = secondary cord between P2 and P3, etc.	
ADP	adapertural primary cord on the siphonal canal
MP	median primary cord on the siphonal canal
APERTURE	
D1 to D5	abapical denticles

Table 1. Terminology used to describe the spiral cords and the internal denticles of the outer lip (based on Merle 1999, 2001) (Fig. 1)

SYSTEMATICS

Family **Muricidae** Rafinesque, 1815

Genus *Pazinotus* Vokes, 1970

Type species by original designation: *Eupleura stimpsonii* Dall, 1889, Recent, western Atlantic.

Pazinotus goesi n.sp.

Figs 1, 2-5, 10

Type material. Holotype SMNH 6145 and one paratype SMNH 6146

Type locality. Virgin Islands, 18° N, 65° W, coral gravel, living at 364-582 m.

Description. Shell small, 10.8 mm in length at maturity (holotype), broadly biconical, spinose, tightly built. Spire high with 1.5 protoconch whorls and 4.25, weakly convex, strongly shouldered teleoconch whorls. Suture impressed, partially obscured by small axial lamellae of following whorl. Protoconch large, broad; whorls rounded, smooth, glossy. Terminal lip thin, slightly erect, weakly curved.

Axial sculpture of teleoconch whorls consisting of low, lamellate, weakly spinose varices. Eight varices on first whorl, 9 on second, 7 or 8 on third, last whorl with 4 varices. Other axial sculpture absent. Spiral sculpture of high, narrow, weakly squamous, primary, secondary and tertiary cords. First whorl with visible P1 and P2, second with P1, s1, P2, third with IP, P1, s1, P2, s2, P3, last whorl with IP, adis, P1, t, s1, t, P2, (s2), P3, (s3), P4, (s4), P5, s5, P6, s6, ADP, s, MP. Infrasutural ramp narrow, with narrow IP and nearly obsolete adis. P1 broadest, other primary and secondary cords decreasing in strength abapically. P1 developing short, acute, open spines; other cords with knobs and short spinelets at intersection with varices. Aperture large, ovate. Columellar lip narrow, smooth except strong knob abapically. Rim partially, weakly erect, adherent at adapical extremity. Anal notch broad, deep. Outer lip weakly erect, undulate, with 5 weak, broad denticles within (D1-D5). Siphonal canal short, broad, straight, open. Shell entirely white. Operculum and radula unknown.

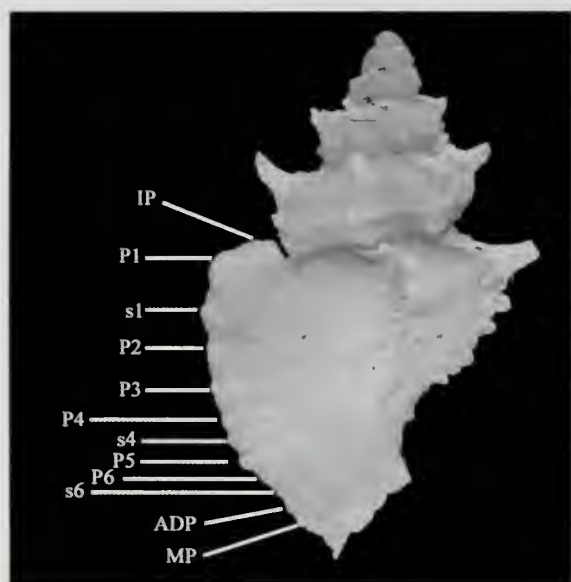


Fig. 1 *Pazinotus goesi* n.sp.

Remarks. Only the type species, *P. stimpsonii*, is superficially similar in having also a broadly biconical, shouldered shell, similar in size to *P. goesi* n. sp., and in having short, open, shoulder spines. However, *P. goesi* differs considerably in having high, well-defined, primary, secondary and tertiary spiral cords, comparing to *P. stimpsonii* (Figs 6-8, 11)

Figures 2-11

2-5. *Pazinotus goesi* n.sp. Virgin Islands, 18° N, 65° W, coral gravel, living between 364-582 m.

2-3. Holotype SMNH 6145, 10.8 mm ; 4-5. Paratype SMNH 6146, 8 mm.

6-9. *Pazinotus stimpsonii* (Dall, 1889). Virgin Islands, 18° N, 65° W, coral gravel, living at 364-582 m, SMNH 71734. 6-7. 10.4 mm; 8-9. 7.6 mm.

10. Protoconch of *P. goesi* (paratype SMNH 6146). Scale bar 0.5 mm.

11. Protoconch of *P. stimpsonii* (SMNH 71734). Scale bar 0.5 mm.

which only has more or less obvious primary cords and numerous spiral striae. *Pazinotus goesi* also differs in having a broader, twice as large protoconch (Fig. 10), and in lacking the numerous spiral striae observed in *P. stimpsonii*. It is also interesting to observe these differences in juvenile shells of both species (Figs 4-5, 8-9).

Etymology. Named for Axel Theodor von Goës (1835-1897) (Sweden) who collected that species. He worked as physician at the garrison of St. Barthelemy, then a Swedish colony. He performed some dredgings there, at depths to about 730 m (A. Warén, pers. comm.).

Acknowledgments. I am most grateful to Anders Warén, Swedish Museum of Natural History, Stockholm, Sweden for giving me the opportunity to study this material and to José H. Leal, The Bailey-Matthews Shell Museum, Sanibel Island, Florida, for his comments on the manuscript.

REFERENCES

- Costa, P.M.S. 1993. From the shallow waters of Brazil, *Poirieria (Pazinotus) bodarti* n.sp. *La Conchiglia* Vol. 25 (269): 49-51.
- Houart, R. 1991. The Southeastern Brazilian Muricidae collected by R.V. Marion-Dufresne in 1987, with the description of three new species. *The Nautilus* 105 (1): 26-37.
- Merle D. 1999. *La radiation des Muricidae (Gastropoda : Neogastropoda) au Paléogène: approche phylogénétique et évolutive*. Paris. Thèse de doctorat du Muséum national d'Histoire naturelle: i-vi, 1-499.
- Merle D. 2001. The spiral cords and the internal denticles of the outer lip in the Muricidae: terminology and methodological comments. *Novapex* 2 (3): 69-91.
- Vokes, E.H. 1970. Cenozoic Muricidae of the Western Atlantic region. Part V. *Pterynotus* and *Poirieria*. *Tulane Studies in Geology and Paleontology*, 8 (1): 1-50.
- Vokes, E.H. 1992. Cenozoic Muricidae of the western Atlantic region. Part IX - *Pterynotus*, *Poirieria*, *Aspella*, *Dermomurex*, *Calotrophon*, *Acantholabia*, and *Attilosia*; additions and corrections. *Tulane Studies in Geology and Paleontology*, 25 (1-3): 1-108.

